

Weather and Climate of Death Valley National Park

Hottest. Driest. Lowest.

Death Valley is one of the world's most extreme climates. It is the hottest, driest and lowest place in North America. However, the park itself covers a vast range of terrain that ranges from 282 feet below sea level to 11,049 feet at the summit of Telescope Peak. As a result, weather conditions vary greatly within the park itself. Temperatures can vary by 3°F to 5°F for each thousand feet (1°C to 3°C for every 304 meters).

The lowest elevations of the park are significantly drier than the mountains. The Panamint Range along with other mountain chains to the west block much of the moisture that accompanies storm systems that move in from the Pacific. With colder air being more common at higher elevations, snow falls with many winter storms in the mountains while it is extremely rare at the lowest elevations of the park. During the summer, the monsoon season brings thunderstorms, some which will unleash heavy rain in a short period. Most of the year throughout the park, however, the weather is characterized by sunshine. Gusty winds occur on several days each month from October through May, with the highest frequency in the spring months. Dust storms can suddenly develop ahead of cold fronts.

Temperatures and Precipitation

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Avg. High	66.9°F 19.4°C	73.3°F 22.9°C	82.1°F 27.8°C	90.5°F 32.5°C	100.5°F 38.1°C	109.9°F 41.4°C	116.5°F 47.5°C	114.7°F 46.0°C	106.5°F 41.4°C	92.8°F 33.8°C	77.1°F 25.1°C	65.2°F 18.4°C	91.4°F 33.0°C
Avg. Low	40.0°F 4.4°C	46.3°F 7.9°C	54.8°F 12.7°C	62.1°F 16.7°C	72.7°F 22.6°C	81.2°F 27.3°C	88.0°F 31.1°C	85.7°F 29.8°C	75.6°F 24.8°C	61.5°F 16.4°C	48.1°F 8.9°C	38.3°F 3.5°C	62.9°F 17.2°C
Record High and Year	87°F 31°C 2015	98°F 37°C 1986	104°F 40°C 2015	113°F 45°C 2012	122°F 50°C 2000	129°F 54°C 2013	134°F 57°C 1913	127°F 53°C 1933	123°F 51°C 1996	113°F 45°C 2012	97°F 36°C 1966	89°F 32°C 1949	134°F 57°C 1913
Record Low and Year	15°F -9°C 1913	21°F -6°C 1933	26°F -3°C 1989	35°F 2°C 1921	42°F 6°C 1930	49°F 9°C 1923	62°F 17°C 1927	65°F 18°C 1972	41°F 5°C 1924	32°F 0°C 1924	24°F -4°C 1921	19°F -7°C 1924	15°F -9°C 1913
Normal Precip.	0.39 in 0.99cm	0.51 in 1.30cm	0.30 in 0.76cm	0.12 in 0.30cm	0.03 in 0.08cm	0.05 in 0.13cm	0.07 in 0.18cm	0.13 in 0.33cm	0.21 in 0.53cm	0.07 in 0.18cm	0.18 in 0.46cm	0.30 in 0.76cm	2.36 in 5.99cm

All weather statistics shown above are for Furnace Creek and were obtained from the official National Weather Service weather stations at Greenland Ranch and Furnace Creek from 1911 through 2013. Averages and normals are based on the period from 1981 to 2010 and are provided by NOAA's National Centers for Environmental Information (NCEI).



Always be weather-ready before you venture out! You can get the latest weather for Death Valley National Park at: <http://www.weather.gov/lasvegas/> or inquire for weather updates at the Death Valley Visitor Center at Furnace Creek.



An Extreme Climate



Why So Dry?

Winter storms moving inland from the Pacific Ocean must pass over mountain ranges to continue east. As the clouds rise up they cool and the moisture condenses to fall as rain or snow on the western side of the ranges. By the time the clouds reach the mountain's east side they no longer have as much available moisture, creating a dry "rain shadow".

Four major mountain ranges lie between Death Valley and the ocean, each one adding to an increasingly drier rain shadow effect.

Why So Hot?

The depth and shape of Death Valley influence its summer temperatures. The valley is a long, narrow basin 282 feet (86 m) below sea level, yet is walled by high, steep mountain ranges. The clear, dry air and sparse plant cover allow sunlight to heat the desert surface. Heat radiates back from the rocks and soil, then becomes trapped in the valley's depths. Summer nights provide little relief as overnight lows may only dip into the 85°F to 95°F (30°C to 35°C) range.

Heated air rises, yet is trapped by the high valley walls, is cooled and recycled back down to the valley floor. These pockets of descending air are only slightly cooler than the surrounding hot air. As they descend, they are compressed and heated even more by the low elevation air pressure. These moving masses of superheated air blow through the valley creating extreme high temperatures.



Longest Hot Spells

The greatest number of consecutive days with a maximum temperature of 100°F (38°C) or above was 154 days in 2001. 1917 had 52 days of 120°F (49°C) or greater with 43 consecutive days with a high temperature of 120°F or above.

Highest Ground Temperature

The highest ground temperature recorded was 201°F (94°C) at Furnace Creek on July 15, 1972. The maximum air temperature for that day was 128°F (53°C).

Weather Landmarks

- **1911** Permanent weather station established at Greenland Ranch now known as Furnace Creek Ranch.
- **1913 Coldest temperature** of 15° F (-10°C) recorded on January 8. **Hottest temperature** of 134°F (57°C) recorded on July 10. 5 consecutive days reach 129° F (54°C) or above. 4.54 in. (11.5 cm) of rain held calendar year record 92 years.
- **1917** 52 days of 120°F (49°C) or greater with 43 of them consecutive.
- **1922** Only measurable snow to fall in Furnace Creek on record – a half an inch (1.3 centimeters) on January 29th.
- **1929** No rain recorded for the entire year.
- **1931-1934** Driest stretch on record with only 0.64 inch (1.63 cm) of rain in a 40 month period.
- **1933** National Park Service weather station established at Cow Creek, 3 miles north of Furnace Creek.
- **1949** Significant January storm drops 4 inches (10 cm) of snow at Cow Creek. Snow flurries at Greenland Ranch.
- **1953** No measurable rain at Greenland Ranch for the year.
- **1960** 129°F (54°C) recorded at Greenland Ranch on July 18th.
- **1961** Weather station opens at new Furnace Creek Visitor Center. Cow Creek and Greenland Ranch stations close.
- **1976** Floods wash out Golden Canyon Road. Five days of rain bring a total of 2.37 inches (6.02 cm).
- **1977-1978** 5.09 inches (12.93 cm) of rain from July-June. Spectacular wildflower bloom in spring 1978.
- **1984** Summer floods close park roads for several weeks.
- **1989** No measurable rain recorded at Furnace Creek for the year.
- **1995** 2.59 inches (6.58 centimeters) of rain falls at Furnace Creek in January, wettest month ever.
- **1997-1998** 2nd wettest July-June on record with 6.09 inches (15.47 cm) of rain. Spectacular wildflower bloom.
- **1998** 129°F (54°C) recorded at Furnace Creek on July 17th.
- **2001** 154 consecutive days at or above 100°F (38°C).
- **2004** Flash flood on August 15th kills two and closes park for 9 days. Some roads are closed for months.
- **2004-2005** Wettest July-June on record with 6.44 inches (16.36 cm) of rain. Spectacular wildflower bloom.
- **2005** 129°F (54°C) recorded at Furnace Creek on July 19th. Wettest year on record with 4.73 inches (12.01 cm).
- **2013** 129°F (54°C) recorded at Furnace Creek on June 30th, most recent occurrence of this mark.